

THE ONOTO MAGNA

STEPHEN HULL AND LAURENCE OLDFIELD HAVE WRITTEN THE HISTORY, ANATOMY AND APPRECIATION OF THE ONOTO MAGNA

HISTORY

"Here are the pens you've been waiting for . . . in response to many requests, we have introduced a new Mammoth pen – the Onoto Magna – which should prove a worthy successor to the previously popular 1850 Model. All Onoto visible ink Models . . . including the Onoto Magna will be available as from October 1st in a new all-over patterned transparent material, in two colours – silver transparent with rhodium plated fittings, or golden brown transparent with rolled gold fittings. These pens, which look opaque in normal use but show the ink level when held to the light, will be called 'Light-Visible Models'." Thus stated the trade press double-page adverts introducing De La Rue's new Onoto Magna plunger-filling fountain pens in August 1937.

The Magna was launched in three models – transparent black engraved, as well as in silver and golden brown 'light visibility'. They were numbered as 1861 (one cap band and No 6 nib); 1873 (three cap bands and No 7 nib) and 1876 (wide 14ct band and No 7 nib). The silver-visible model was not initially available in the 1876. They retailed at 37/6, 45/-, and 50/- respectively. Matching pencils were also available.

The 1861 – note the transparent barrel in the Black Engraved pen and the rhodium plated trim in the Silver Visible pen.



The 1873 – note the transparent barrel in the Black Engraved pen and the rhodium plated trim in the Silver Visible pen and matching pencil.

The beautiful and unusual plastic from which the Magnas were made was the invention of Edward Gibson Knight who, with De La Rue, registered a patent, No 497169 of November 1937, for the combination of the transparent and opaque materials used. Knight (again, jointly with De La Rue) also registered the patent, No 495659 of July 1937, for the same materials and their combination, in a lattice-work pattern, that featured in the Onoto Minor, also introduced in October 1937. Knight's earlier patent number is often to be found in the Minor's barrel imprints, but the later patent is rarely, if ever, featured in the Magna's barrel imprints, though a "Br. Patent

Applied For" imprint is occasionally in evidence.

The new plastic material was, no doubt, developed and produced at De La Rue's huge plastic moulding factory at Avenue Works on the (North) Circular Road, Walthamstow, in north-east London, where nearly £100,000 had been spent in 1937/38 on new buildings and plant and which De La Rue proudly claimed to be the "finest and largest plant for plastic moulding, not in England only, but in all Europe to-day."

By mid-1939 the retail prices of the 1861 and 1873 had been reduced to 30/- and 37/6 respectively and a silver-visible was now available in the 1876 (still at 50/-); but, by October 1939

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prices were on the increase: 1861 at 35/-, 1873 42/- and 1876 60/-. These prices held until mid-1940, at about the time that the Magna range was withdrawn from sale. In common with other pen manufacturers during WWII, De La Rue were obliged to concentrate their resources on war work and, where the availability of materials and labour allowed, on lower-price pens, particularly for export.

The 1873 (at 42/-) and 1876, with wide 9ct band (at 60/-), were re-introduced in April 1946 and were still available, at the same prices (excluding Purchase Tax), into 1955. However, it is evident (from adverts and price lists) that from 1949, at the latest, these models were available in black engraved (without 'visibility') only, as

was a new Magna, the 1703 lever-filler (three cap bands, No 7 nib and box-lever), which was introduced in around 1948 at a retail price of 42/- . De La Rue adverts and leaflets of the immediate post-war period make no mention of 'ink-visible' availability on Magnas or any other Onotos and it may, thus, be safely assumed that manufacture of the transparent black engraved, silver and golden brown ink-visible models was discontinued at the time of the withdrawal of the original Magna range in mid-1940.

The manufacture of the 1873, 1876 and 1703 Magnas was discontinued in the mid-1950s, at which time the new K Series Onotos would have been in production in readiness for their launch in August 1955.



The 1876 with 14ct band (with De La Rue hallmark) – note that this Golden Brown Visible pen has a short clip and that the Silver Visible pen has a rolled gold clip. The later, post-war, 1876s have 9ct bands (with Johnson Matthey hallmark).



The later 1873 – note the rolled gold trim on the silver visible pen and that the matching pencil does not have bands above and below the clip washer.



The 1703 lever filler, available only in black engraved – note the thin clip washer, and a prototype (?) ink pencil (courtesy of Henry Simpole). Note that the cap on the ink pencil is bandless (although there is a groove to take a band) and that the section, nozzle etc appear to have been produced specifically to fit this model, which has the usual Magna barrel imprints.



The two nib sizes – 6 and 7 – with and without platinising, and the stylus nozzle.

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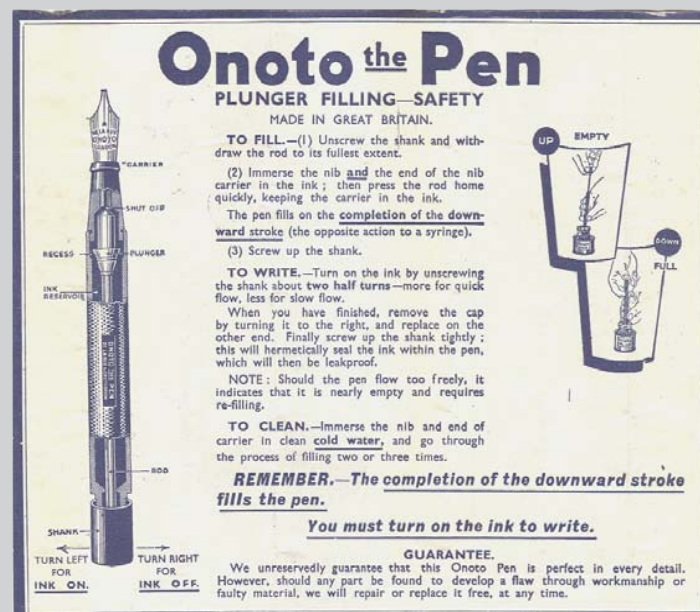


Leaflet c1937 – note the three original Magna colours/trim in Golden Brown Visible, Solver Visible and Black Engraved

The Onoto instructions are more informative than most. They show what is inside the pen and clearly explain the ink cut-off system.

ANATOMY AND MODE OF OPERATION

The early Magnas operated as plunger fillers in the same way as standard Onotos. This method of filling a pen had been very successful since its launch in 1905, and with the introduction of transparent plastics, there came the additional advantage that the ink content could be clearly seen. Plunger fillers work by a single down stroke, so they are easy and quick to fill; however, they rely on good quality seals in the barrel and on the piston for good filling. As a result of pushing the plunger down, a vacuum is created in the end of the barrel. When the piston seal reaches the end of its travel, it enters a section (release chamber) where the internal diameter of the barrel is greater than the diameter of the piston seal. As a result, the vacuum is broken and ink rushes past the seal to fill the vacuum. Technically minded readers can obtain much more information on the filling system by looking at our recently published book 'Onoto Pen Repair' which covers the history, the construction and the repair of Onoto pens. The present article discusses the anatomy of Magnas, but does not deal with their repair.



An Onoto The Pen 6233 Series demonstrator courtesy of David Nishimura

Magnas retained the same external dimensions over the years except for the clip where there are two different lengths (34mm and 39mm) and two different designs of clip washer. Internally, there are several variations, the most important of which is the internal diameter. Almost all Magnas have a plunger rod of hard rubber (vulcanite) reinforced with a steel core like the smaller Onotos, but rarely some of the early war ones are found that have a rod with a threaded brass core and a nut to enable length adjustment (like the plunger Sheaffers). These models have a plunger knob made of black celluloid rather than vulcanite.

All Magnas have a screw fit section (conventional thread). The feed is curiously small in diameter, so the No 7 nibs are 'necked' at the root to ensure a good fit into the section. In our opinion, this was a mistake because the size of the pen and nib require a large capacity feed/collector in order to

The plunger components are held together with a vulcanite pin that can be knocked out with a pin punch; the plunger knob is held on to the rod on a left handed thread and prevented from unscrewing by another vulcanite pin. The ends of these pins are often hard to find and cause problems for repairers. Another problem for repairers is finding the correct plunger washer because there are at least four different internal barrel diameters, although there are only two common ones (9.2 and 9.8mm). The thickness, flexibility, coefficient of friction and resistance to ink corrosion are also important for the washer. It is not clear what material was used originally, but we do know that the flat washers used by contemporary repairers were not used. We have the original drawings that show cup-shaped washers with a thinned lip. These were designed to open up to grip the barrel on the down stroke and close to permit the passage of air/ink on the



reduce the risk of flooding; however, later pens were fitted with a finned feed to increase the collector volume. The inside end of the feed is indented conically to match the angle of the piston head as part of the ink cut-off facility that was advertised as a means to prevent ink leakage while in the pocket. The indent means that if the feed and nib need to be removed, a drift rod pointed at the correct angle is required to avoid damage to the ink channel.

The ink cut-off is extremely effective, but it can lead to problems for customers who have not read the instructions. Arthur Twydale used to relate the story of the irate customer who called to say that his repaired Onoto would not work. "I am not very happy! I filled it, screwed it up tight and it wrote for about 5 words – nothing more! I am going to formally write you a letter!" "Well did you turn it on?" Arthur replied, "because until you do you'll be a long time writing that letter!"

up stroke. Jim Marshall is currently conducting research that we hope will lead to recreation of the original washers, and hopefully a more reliable performance from restored Magnas. The seal at the end of the barrel is also vital for proper filling, but fortunately this is easy to reproduce from cork to the original specification. This seal is covered by a vulcanite washer threaded externally so that it can be screwed down to give some compression to the cork, thereby ensuring that a good vacuum is maintained in the back of the pen as the plunger is pushed down.

The lever filling Magnas are the same size as the plunger fillers except that the barrel button is 5mm shorter; they follow conventional lever filler design practice. These pens are less desirable to collectors, but more desirable for writers because of their improved reliability and reduced sensitivity to climatic variations.

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The Magna pencils follow conventional design principles, are well made and easily dismantled. The mechanism was probably made by Johnson-Matthey. This rarely fails, but it is complicated to repair, and a replacement is usually required. Two designs of mechanism are common, one of which requires the adjustment of a small nut to put the mechanism in correct alignment with the barrel.

Pencil with 9ct band to match the 1876 pen



Leaflet c1937 – note the smaller 'Standard' 6233/4/5/6 series includes a Blue Visible and a Green Visible. The Silver Visible and the Green Visible are obviously different colours



USING THE MAGNAS

Magnas are spectacular in appearance, carry a high price tag and are obvious candidates for the writer's 'harem'. Unfortunately, the performance tends to fall a little short of expectations (in the writers' experience), and they do not usually last very long as the favourite writer. There are several reasons for this. The feed/collector is too small (especially the plain feeds on prewar models), the filling of the plunger models is not always consistent and they suffer from the propensity of all single skin barrel reservoir pens to flood when exposed to rapid temperature and pressure variations. To offset against this negativity is the wonderful experience of using a really flexible No 7 nib to add some character to the writing.

IDENTIFICATION AND DATING

Throughout their prewar, early war and post war production, Magnas retained their external style and dimensions, but there are a few factors that can be used to associate most pens with one of the three periods, as identified in the Summary Table above. However, there are two other factors, relating to clips, that may help to date individual pens, although it is by no means certain when the different types of clip were available:

- Short clips (at 34mm vs the standard 39mm) are sometimes evident. These have been found on early war pens.
- The original washer clips had a 'wide' washer. This type of clip was often prone to be broken away from its integral washer, so at some stage a narrower washer clip was often used, either on its own, or with a separate wide 'band' to provide a firmer fixing.

SUMMARY OF ONOTO MAGNA MODELS AND SPECIFICATIONS

Filler Type	Plunger-Filler			Box Lever-Filler
Model Number	1861	1873	1876	1703
Pre-War Models				
Introduction Date	October 1937			Not available
Colour	Black Engraved with Transparent Barrel			
Cap Bands	1 Narrow Rolled Gold	3 Narrow Rolled Gold	1 Wide 14ct Gold (D.L.R.LTD)	
Colour	All-over Golden Brown Transparent			
Cap Bands	1 Narrow Rolled Gold	3 Narrow Rolled Gold	1 Wide 14ct Gold (D.L.R.LTD)	
Colour	All-over Silver Transparent			
Cap Bands	1 Narrow Rhodium-Plated	3 Narrow Rhodium-Plated	Not available	
Nib Size ^a	6	7	7	
Retail Price at Intro ^b	30/-	37/6	50/-	
Matching Pencil No ^c	276	376	476	
Boxed Set Retail Price	37/6	45/-	62/6	
Early War Models				
As above, except:	All-over Silver Transparent, now with			
Cap Bands	Not available	3 Narrow Rolled Gold	1 Wide 14ct Gold (D.L.R.LTD)	
Nib Size ^d		7	7	
Post-War Models				
Approx Re-Intro/ Introduction Date		Early 1946		1948
Colour	Black Engraved (not Transparent) Opaque only			
Cap Bands		3 Narrow Rolled Gold	1 Wide 9ct Gold (JM & Co) ^e	3 Narrow Rolled Gold
Nib Size ^f		7	7	7
Retail Price ^g		42/-	60/-	42/-
Approx Deletion Date		1954		1955

- Notes:
- Generally single-colour 14ct gold, though later pre-war models had two-tone (top part 'platinised') 14ct.
 - Manifold nib available at 5/- to 6/- extra.
 - Not imprinted in barrel.
 - Generally two-tone (top part 'platinised') 14ct gold.
 - By 1949/50 maker's mark probably reverted to D.L.R.LTD.
 - Initially two-tone 'platinised' in 1873 and 1876, but soon reverted to single-colour 14ct.
 - These prices, excluding Purchase Tax, were still current in early 1954.